

IN THE CLAIMS:

Please amend claims 1-3, 12, and 22-24 as follows:

1. (Currently Amended) A magnetic disk drive system which is able to write data on and read the data from a rotating magnetic disk by a write head and a read head respectively disposed at a distance from each other ~~and has~~, comprising:

a detecting unit which detects a position of the read head at the timing when the data is written with the write head and a position of the read head at the timing when the data is read with the read head; and

a head-distance measuring means for measuring said unit which computes the distance between said heads in the circumference direction of track of said disk based on the position detected by the detecting unit.

2. (Currently) The magnetic disk drive system of claim 1, wherein the head-distance measuring ~~means-unit~~ computes said distance based on the position of the read head at the timing when said data is written with the write head and the position of the read head at the timing when said data is read with the read head.

3. (Currently Amended) The magnetic disk drive system of claim 1 or claim 2, wherein the write head writes the data for distance measurement in the position at a distance from the servo information in a sector, and the head-distance

measuring ~~means-unit~~ computes said distance based on the position where the data for distance measurement has been written.

4. (Original) The magnetic disk drive system of claim 3, wherein the data for distance measurement is written in all of the sectors of said track at the same write timing and said distance is measured at said sectors.

5. (Original) The magnetic disk drive system of claim 3, wherein the data for distance measurement is written in a plurality of selected sectors on said track at the same write timing and said distance is measured at said sectors.

6. (Previously Presented) The magnetic disk drive system of claim 5, wherein the data for distance measurement is written in the sectors of all of the tracks of said disk at the same write timing and said distance is measured at said sectors.

7. (Previously Presented) The magnetic disk drive system of claim 5, wherein the data for distance measurement is written in the sectors of a plurality of the tracks selected of said disk at the same write timing, and said distance is measured at said sectors.

8. (Original) The magnetic disk drive system of claim 3, wherein, when said distance increases in the radial direction of said disk, the number of the sectors in which the data for distance measurement is written are increased per track.

9. (Previously Presented) The magnetic disk drive system of claim 3, wherein the data for distance measurement is written in a position predetermined with reference to said servo information.

10. (Original) The magnetic disk drive system of claim 9, wherein the data for distance measurement is written at the write frequency of said servo information.

11. (Original) The magnetic disk drive system of claim 9, wherein the data for distance measurement is written at the write frequency of the data written in the data area of said disk.

12. (Currently Amended) The magnetic disk drive system of claim 3, wherein the head-distance measuring means-unit obtains the position of the read head at the time when reading the written data for distance measurement, and computes said distance.

13. (Original) The magnetic disk drive system of claim 12, wherein said position of the read head is detected with reference to said servo information.

14. (Original) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by incrementing the read timing of the read head sequentially from the position predetermined with reference to said servo information.

15. (Withdrawn) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by decrementing the read timing of the read head sequentially from the position predetermined with reference to said servo information.

16. (Withdrawn) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by renewing the read timing of the read head while repeating the increment and the decrement of the read timing of the read head alternately centering the position predetermined with reference to said servo information.

17. (Previously Presented) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by including the end position of the data for distance measurement in the search window opened at the read timing of the read head.

18. (Original) The magnetic disk drive system of claim 17, wherein said position of the read head is determined based on the largest one in a plurality of said

read timings corresponding to a plurality of said search windows in which said end position is included.

19. (Previously Presented) The magnetic disk drive system of claim 13, wherein the read head performs the read operation at the same read timing for the plurality of said sectors in which the data for distance measurement has been written.

20. (Previously Presented) The magnetic disk drive system of claim 1 or claim 2, wherein a plurality of positions, where said distances are measured, in the radial direction of the disk, are selected, and said distances, which are not measured, in relation to the other positions, are determined by interpolation based on said distances measured in correspondence with said positions.

21. (Original) The magnetic disk drive system of claim 20, wherein a plurality of positions where said distances are measured are selected at regular intervals.

22. (Currently Amended) The magnetic disk drive system of claim 1 or claim 2, wherein the distance measured by the head-distance measuring ~~means-unit~~ is stored.

23. (Currently Amended) The magnetic disk drive system of claim 22, wherein the distance measured by the head-distance measuring means-unit is stored in the internal memory of the system.

24. (Currently Amended) The magnetic disk drive system of claim 22, wherein the distance measured by the head-distance measuring means-unit is stored in said disk.

25. (Previously Presented) The magnetic disk drive system of claim 22, wherein said distance is measured and stored when the power of the system is turned on.

26. (Previously Presented) The magnetic disk drive system of claim 22, wherein said distance is read out when the power of the system is turned on.

27. (Previously Presented) The magnetic disk drive system of claim 22, wherein when data is written on said disk, the write timing of the write head is determined by adding said distance to the position where the data is written.